REMARKS/ARGUMENTS

This Amendment is in response to the Office Action mailed August 9, 2007. Claims 1-3 and 5-20 were pending in the present application. This Amendment amends claims 1, 5, and 6; and adds new claims 25 and 26; leaving pending in the application claims 1-3, 5-20, and 25-26. Reconsideration of the rejected claims is respectfully requested.

I. Examiner Interview

A telephone interview was conducted with Examiner Myint and Primary Examiner Truong on October 16, 2007. The undersigned attorney and Dr. Kim Kanzaki represented the Applicants in the interview. In the interview, differences between the claimed invention and the *Komine* and *Brickmore* references were discussed. While no agreement was reached as to the allowability of the claims, Examiner Myint indicated that there appear to be significant differences and provided suggestions for amending the claims to better highlight those differences in order to overcome the rejections. Applicants appreciate the Examiner's helpful comments, and the claims as presented herein are amended accordingly. Applicants therefore respectfully submit that the claims in their amended form are allowable over the cited references.

II. Rejection under 35 U.S.C. §103

Claims 1-3 and 16-18 are rejected under 35 U.S.C. §103(a) as being obvious over *Trappen* (US 2004/0015814) in view of *Komine* (US 6,728,727) and *Brickmore* (US 2003/0206170). Applicants respectfully submit that these references do not teach or suggest each element of these claims.

For example, Applicants' claim 1 as amended recites an integration server system comprising:

> a processor operable to execute instructions stored in a data storage medium;
> a database operable to store data accessible to the processor;
> **a database schema configured to store a set of data object instances** in the database;
> a metadata model representing a configuration of the set of data object instances in the database schema;

> a model application programming interface operable to provide a client application with access to the set of data object instances as separate data objects; and
>
> a metadata application programming interface adapted to provide a client application with access to definitions for the set of data object directly within the database schema instances via the metadata model,
>
> **wherein the database schema utilizes an ordered sequence for preserving an ordered association between the set of data object instances, a random sequence value being generated for a new data object instance to be inserted into the ordered sequence, the random sequence value being generated relative to at least one adjacent sequence value for an existing data object instance in the ordered association, the generation of a random sequence value enabling the client application and any additional application able to concurrently insert data object instances into the ordered sequence**

(*emphasis added*). Such limitations are not taught or suggested by these references.

For example, *Trappen* describes a database manipulation interface wherein data is organized and accessed as data objects, instead of by traditional methods such as tables and columns (paragraphs [0052]-[0054]). Each of these objects includes an API that exposes the methods of the respective object (paragraph [0071]), and these objects can be accessed by an application through an appropriate query (paragraphs [0111]-[[0113]). Instead of returning an entire data object as a result of a query, the system is able to return a data set from a data object instead of returning the entire data object (paragraph [0113]). As recognized in the Office Action on page 15, *Trappen* does not teach or suggest a database schema utilizing an ordered sequence for preserving an ordered association between data object instances. Further, *Trappen* does not teach or suggest generating a random sequence value for a new data object instance to be inserted into an ordered sequence for the data object instances, particularly where the random sequence value is generated relative to at least one adjacent sequence value. Even further still, *Trappen* does not teach or suggest such a way for multiple applications to concurrently insert data object instances into an ordered sequence without significant risk of data loss. As such, *Trappen* cannot render obvious Applicants' claim 1.

Combining *Komine* with *Trappen*, even if there were motivation to do so, would not make up for the deficiencies in *Trappen* with respect to claim 1. *Komine* teaches a system for managing persistent objects in a data storing system (col. 1, lines 10-19), and is cited as teaching a sequence identification number and concurrent data manipulation (OA pp. 15-16) *Komine* explicitly teaches "consecutive identification numbers (id)" that are "assigned to the data elements (rows) of one or more attributes of one or more managed objects", with the identification number being assigned as a sequence identification number for all data elements of the attribute. *Komine* does not teach or suggest generating a random sequence value for a new data object instance to be inserted into an ordered sequence for the data object instances, particularly where the random sequence value is generated relative to at least one adjacent sequence value. As *Komine* teaches use of consecutive identification numbers used for rows of data, it is respectfully submitted that using random sequence values would not work with the teachings of *Komine*, or at least that *Komine* teaches away from using random sequence values. Further, while *Komine* might allow concurrent manipulation of attributes of complex data, *Komine* would not allow for multiple applications to concurrently insert new data object instances into an existing ordered sequence by generating random sequence values for each new object instance, such that even if both applications attempted to create a new object instance at exactly the same time to follow the last object instance, for example, there is substantially no risk of the two applications attempting to create new data object instances with the same sequence value. Since *Komine* utilizes consecutive identification numbers corresponding to data rows, if two applications attempted to insert a row at the same time to follow the last row in the table, both applications would attempt to use the same identification number, which could result in a loss of data. As combining *Komine* with *Trappen* still would not teach or suggest such limitations, these references cannot render obvious Applicants' claim 1.

Combining *Brickmore* with *Trappen* and *Komine*, even if there were motivation to do so, would not make up for the deficiencies in these references with respect to Applicants' claim 1. *Brickmore* is directed to creating a personal avatar, and as such is non-analogous prior art. *Brickmore* teaches generating a random number between two specified numbers as a primitive for the avatar file, which appears to be used in selecting random scripts to be executed for the avatar, such as playing an audio file or executing a movement of the avatar (paragraphs [0053]-[0057]). There would be no motivation to combine the random avatar action of *Brickmore* with the database management systems of *Trappen* and *Komine.* Further, as discussed above, the use of random numbers goes against the teaching of Komine such that there would be no motivation to combine the use of random numbers, and even if one did so there is not teaching or suggestion of how random numbers can be used to create consecutive row numbers, or how the database would handle random row numbers. Even if the references were combined, *Brickmore* does not teach or suggest a database schema that utilizes an ordered sequence for preserving an ordered association between data object instances, where a random sequence value is generated relative to at least one adjacent sequence value for an existing data object instance in the ordered association, which enables the client application and any additional application to concurrently insert data object instances into the ordered sequence. Further, Applicants' claim 1 allows a random sequence value to be generated before an initial sequence value or after a final sequence value, and *Brickmore* does not teach or suggest such functionality. As such, *Brickmore* cannot render obvious Applicants' claim 1 even if combined with *Trappen* and *Komine*. As such, claim 1 and the claims that depend therefrom cannot be rendered obvious by any combination of *Trappen*, *Komine*, and *Brickmore*.

Claim 5 is rejected under 35 U.S.C. §103(a) as being rendered obvious by *Trappen* in view of *Komine* and *Brickmore* and further in view of *Burges* (US 2003/0236787). Claim 5 as amended depends from claim 1, which is not rendered obvious by the combination of *Trappen*, *Komine*, and *Brickmore* as discussed above *Burges* teaches automated database matching (paragraph [0007]), and is cited as teaching a floating point value (OA p. 20). Such teaching does not, however, make up for the above-referenced deficiencies in *Trappen*, *Komine*, and *Brickmore* with respect to claims 1 or 5, such that *Burges* cannot render these claims obvious, alone or in any combination with these references.

Claims 6 and 7 are rejected under 35 U.S.C. §103(a) as being rendered obvious by *Trappen* in view of *Komine* and *Bickmore* and further in view of *O'Leary* (US 2001/0050675). Claims 6 and 7 depend from claim 1, which is not rendered obvious by *Trappen*, *Komine*, and *Bickmore* as discussed above. *O'Leary* is cited as teaching a dataset including data fields that comprise two different fields for fixed-length strings and variable-length strings (OA p. 21) Such teaching, however, would not make up for the deficiencies in *Trappen*, *Komine*, and *Bickmore* with respect to Applicants' claim 1, even if there were motivation to combine, as *O'Leary* fails to teach or suggest a database schema utilizing an ordered sequence for preserving an ordered association between data object instances, including generating a random sequence value (relative to at least one adjacent sequence value) for a new data object instance to be inserted into an ordered sequence, whereby multiple applications are able to concurrently insert data object instances into an ordered sequence without significant risk of data loss. As such, *O'Leary* cannot render obvious Applicants' claim 1 or dependent claims 6 and 7, either alone or in any combination with *Trappen*, *Komine*, and *Bickmore*.

Claims 8, 9, and 20 are rejected under 35 U.S.C. §103(a) as being rendered obvious by *Trappen*, *Komine*, *Bickmore* and *O'Leary* in view of *Oba* (US 5,303,147). Claims 8, 9, and 20 depend from claim 1, which is not rendered obvious by *Trappen*, *Komine*, *Bickmore* and *O'Leary* as discussed above. *Oba* does not make up for the deficiencies in these references with respect to Applicants' claim 1, as *Oba* fails to teach or suggest a database schema utilizing an ordered sequence for preserving an ordered association between data object instances, including generating a random sequence value (relative to at least one adjacent sequence value) for a new data object instance to be inserted into an ordered sequence, whereby multiple applications are able to concurrently insert data object instances into an ordered sequence without significant risk of data loss. As such, *Oba* cannot render obvious Applicants' claim 1 or dependent claims 8, 9, and 20, either alone or in any combination with *Trappen*, *Komine*, *Bickmore* and *O'Leary*.

Claims 10, 15, and 19 are rejected under 35 U.S.C. §103(a) as being rendered obvious by *Trappen*, *Komine*, and *Bickmore* in view of *George* (US 6,996,566). Claims 10, 15, and 19 depend from claim 1, which is not rendered obvious by *Trappen*, *Komine*, and *Bickmore* as discussed above. *George* does not make up for the deficiencies in *Trappen*, *Komine*, and *Bickmore* with respect to Applicants' claim 1, as *George* fails to teach or suggest a database schema utilizing an ordered sequence for preserving an ordered association between data object instances, including generating a random sequence value (relative to at least one adjacent sequence value) for a new data object instance to be inserted into an ordered sequence, whereby multiple applications are able to concurrently insert data object instances into an ordered sequence without significant risk of data loss. As such, *George* cannot render obvious Applicants' claim 1 or dependent claims 10, 15, and 19, either alone or in combination with *Trappen*, *Komine*, and *Bickmore*.

Claims 11 and 12 are rejected under 35 U.S.C. §103(a) as being rendered obvious by *Trappen*, *Komine*, *Bickmore* and *George* in view of *Wetherbee* (US 5,937,409). Claims 11 and 12 depend from claim 1, which is not rendered obvious by *Trappen*, *Komine*, *Bickmore* and *George* as discussed above. *Wetherbee* does not make up for the deficiencies in *Trappen*, *Komine*, *Bickmore* and *George* with respect to Applicants' claim 1, as *Wetherbee* fails to teach or suggest a database schema utilizing an ordered sequence for preserving an ordered association between data object instances, including generating a random sequence value (relative to at least one adjacent sequence value) for a new data object instance to be inserted into an ordered sequence, whereby multiple applications are able to concurrently insert data object instances into an ordered sequence without significant risk of data loss. As such, *Wetherbee* cannot render obvious Applicants' claim 1 or dependent claims 11 and 12, either alone or in any combination with *Trappen*, *Komine*, *Bickmore* and *George*.

Claim 13 is rejected under 35 U.S.C. §103(a) as being rendered obvious by *Trappen*, *Komine*, *Bickmore* and *George* in view of *Mather* (US 2005/0055363). Claim 14 is rejected under 35 U.S.C. §103(a) as being rendered obvious by *Trappen*, *Komine*, *Bickmore* and *George* in view of *Horn* (US 5,226,158). Claims 13 and 14 depend from claim 1, which is not rendered obvious by *Trappen*, *Komine*, *Bickmore* and *George* as discussed above. Neither *Mather* nor *Horn* make up for the deficiencies in *Trappen*, *Komine*, *Bickmore* and *George* with respect to Applicants' claim 1, as *Mather* and *Horn* each fail to teach or suggest a database schema utilizing an ordered sequence for preserving an ordered association between data object instances, including generating a random sequence value (relative to at least one adjacent sequence value) for a new data object instance to be inserted into an ordered sequence, whereby multiple applications are able to concurrently insert data object instances into an ordered sequence without significant risk of data loss. As such, neither *Mather* nor *Horn* can render obvious

Applicants' claim 1 or dependent claims 13 and 14, either alone or in any combination with *Trappen*, *Komine*, *Bickmore* and *George*.

Applicants therefore respectfully request that the obviousness rejections with respect to these claims be withdrawn.

III. Amendment to the Claims

Unless otherwise specified or addressed in the remarks section, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the specification and do not add new matter.

IV. Newly Presented Claims

Claims 25 and 26 have been added to cover different aspects of the present invention. These claims are supported by the specification and do not add new matter. Applicants therefore respectfully request consideration of newly presented claims 25 and 26.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 925-472-5000.

Respectfully submitted,

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